

## **Molecular Foundry General Working Alone Policy**

### **General Policy Statement**

Each Foundry Program must implement the “working alone” policy detailed herein. A written implementation plan must delineate work that can and cannot be performed when “working alone” in the Facility, consistent with the rules below. Everyone working in the lab must read, understand and implement the policy. Individual authorization to “work alone” will be provided by the process described below.

“Working alone” will only be permitted once personnel have demonstrated their competence in the lab under supervision and have been working in the lab performing the same type of work for at least 3 months. (Certain low-hazard activities will be permitted with less than 3 months experience.) Undergraduates are not permitted to work alone in Foundry labs at any time.

Supervisors or designated work leads must authorize “working alone” by staff, students and guests. A Foundry staff scientist must authorize “working alone” by users. Permission will only be provided after a detailed review of the work to be performed and with careful consideration of the training and skills of the individual staff person, guest, user or student. The authorization will be in writing.

This process is documented and guided by using the Experiment Review/Risk Assessment form. The Facility Director and the MSD EH&S Manager or EH&S Technician (alternate: liaison from the EH&S Division) must review and approve the authorization before it is implemented. The approval is valid as long as the work does not change, for users up to the duration of an approved user project.

**Work with the following attributes may not ever be performed when working alone.**

### **Master Prohibition List**

Work where a foreseeable injury or exposure may render an individual unable to take appropriate emergency actions. Examples include:

- Corrosive chemical splash to the face that blinds an individual
- Chemical exposure or trauma that impairs consciousness
- Individual set on fire
- Severe electrical shock or arc flash injury
- Unmonitored oxygen deficiency
- Work with open flames, power tools, cutting tools, or welding equipment.

Some specific examples are:

- Handling highly corrosive, toxic, pyrophoric or air/water reactive materials outside of a glovebox
- Work with chemicals with very high dermal toxicity (e.g. TMAH, dimethyl mercury, phenol)
- Any form of LOTO or energized electrical work >50 volts
- Changing toxic/corrosive/pyrophoric gas cylinders
- Moving heavy equipment
- Significant work on ladders
- Spill cleanup
- Work with radioactive materials
- Changing or handling pyrophoric reservoirs
- Opening outer packaging of hazardous chemicals still as shipped
- Synthesis activities including reaction setup, workup, and monitoring outside of a glovebox if corrosive, pyrophoric, air/water reactive or toxic materials are involved
- Filling and handling of large cryogen dewars
- Reactions with unusually large quantities of flammable liquids (>500 ml)
- Work with materials that could form HCN if improperly handled
- Work with cryogenic systems including liquid helium flow systems, large dewars, cryo-tem plunge freezers
- Transportation and use of bottles 4L or larger unless the bottle is safety coated.
- New or not frequently performed experiments.

**Definition of Working Alone**

“Working Alone” means that there is “nobody to hear you scream”. To avoid working alone, having a second person in the same or adjacent lab may be adequate, whereas relying on someone on another floor would clearly not be adequate. If you are not authorized to perform the activity alone, you must be able to talk to the nearby individual(s) and the individual(s) must agree to serve as an emergency responder in the event of an accident. Your work must then be terminated if the nearby person(s) leaves the area or can no longer serve in this capacity. With due consideration of local circumstances, individual facilities in the Foundry may make the proximity rule stricter, but not less strict.

The use of personal music players (e.g. iPods) is not permitted in Foundry laboratories.